

Figure 2

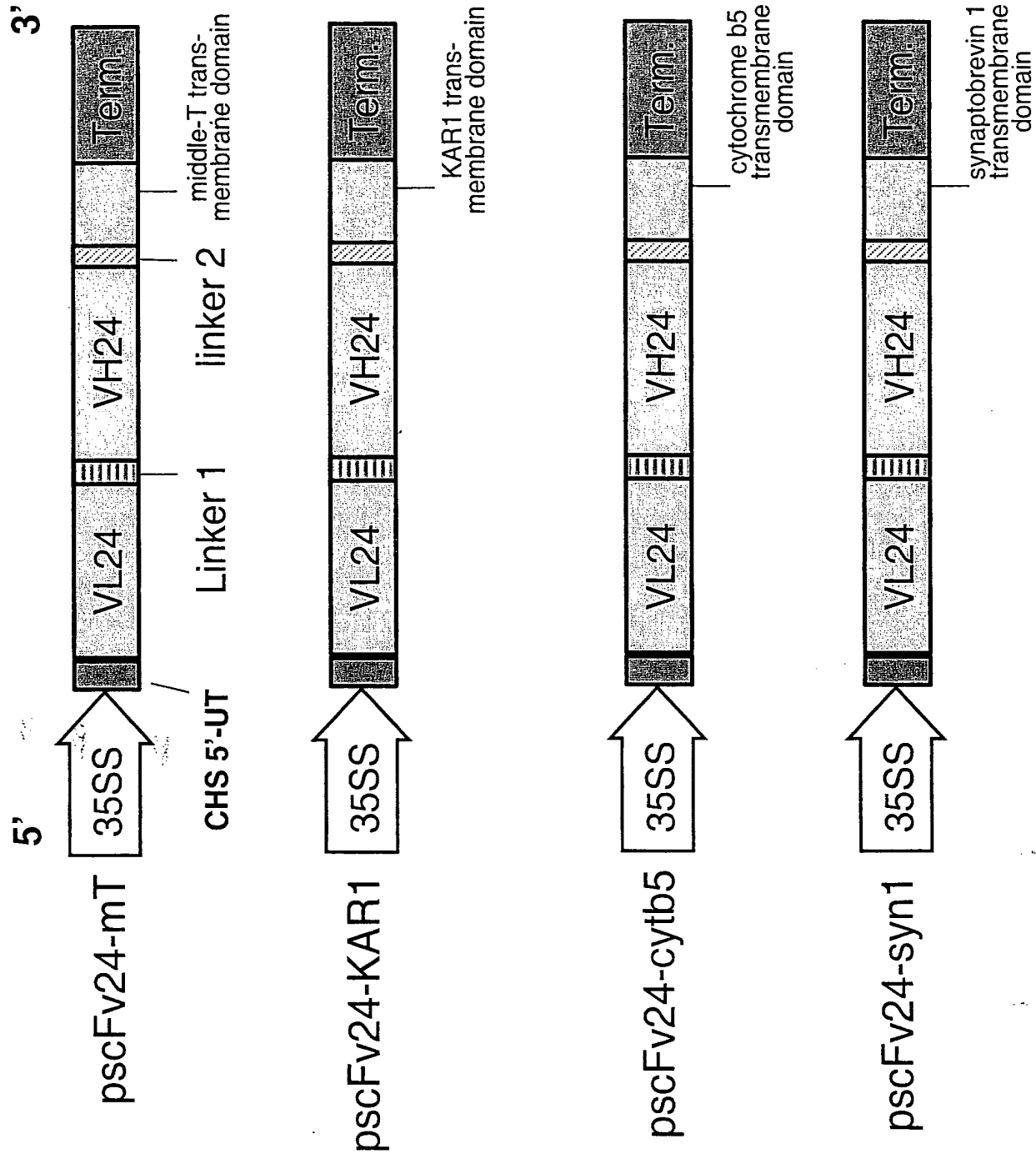


Figure 3

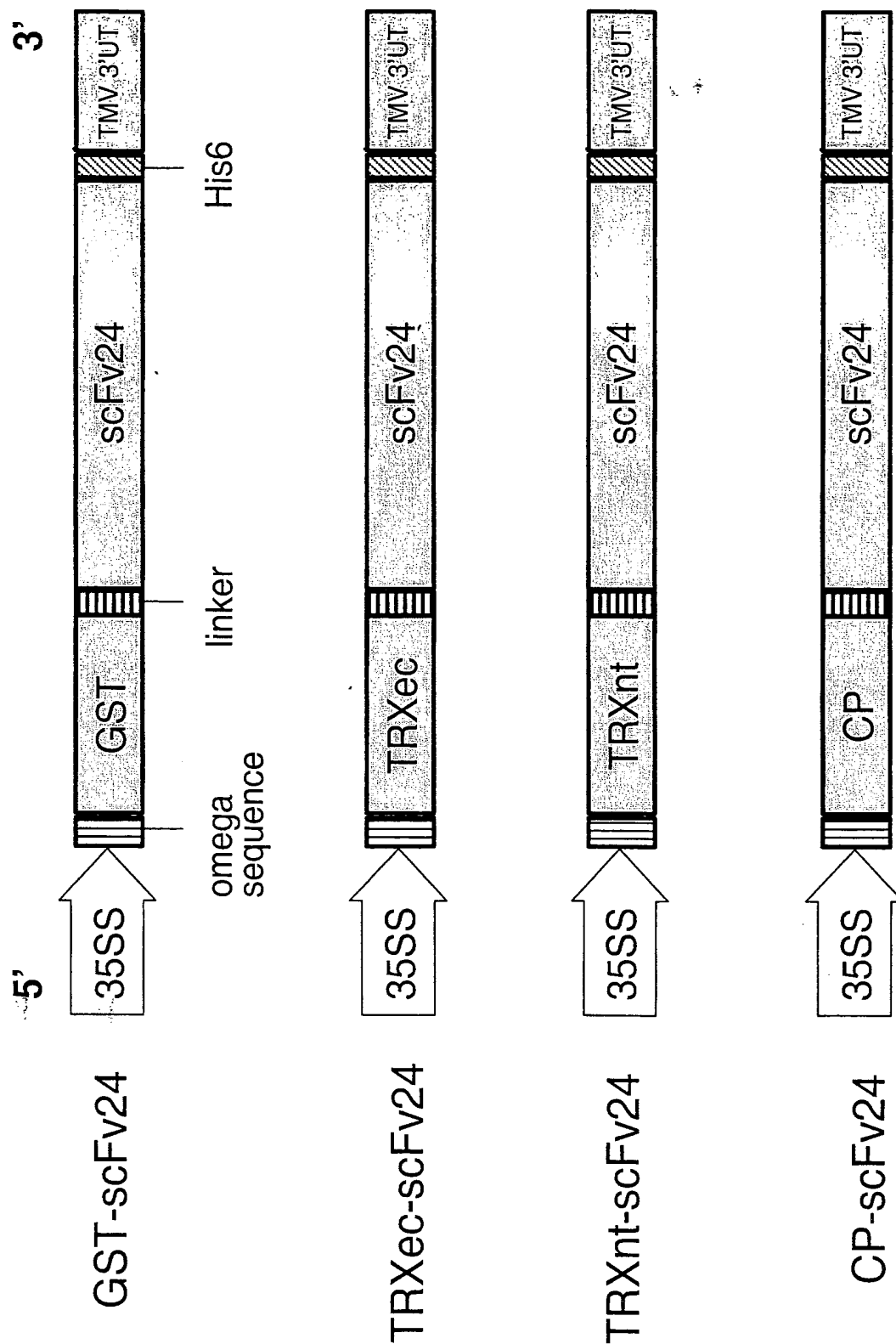
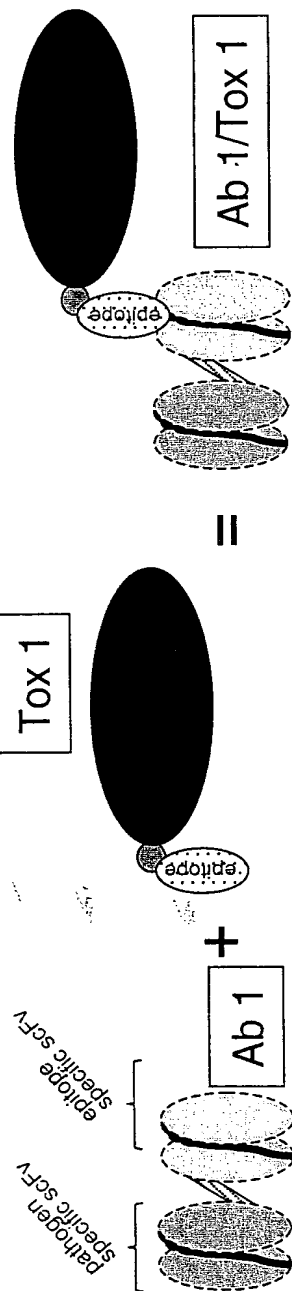
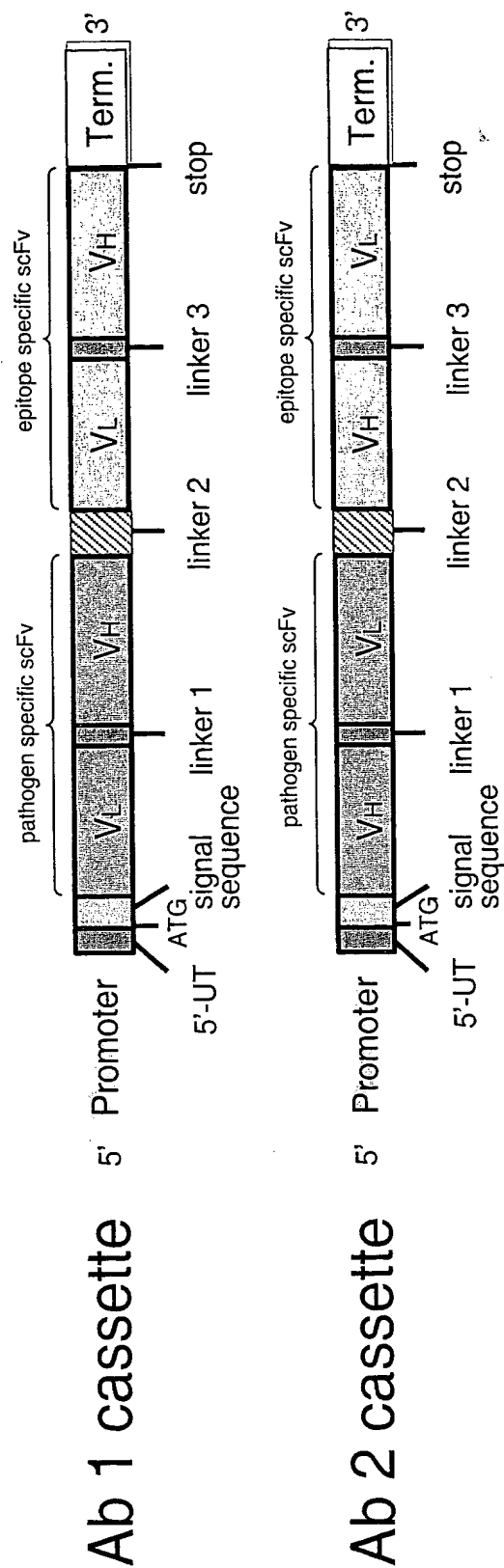


Figure 4

A



B



C

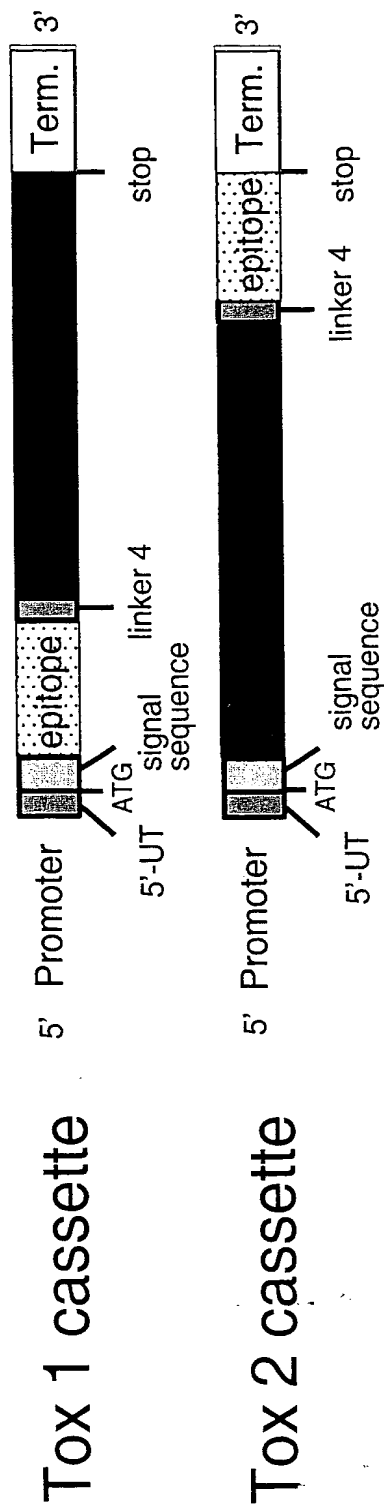


Figure 5

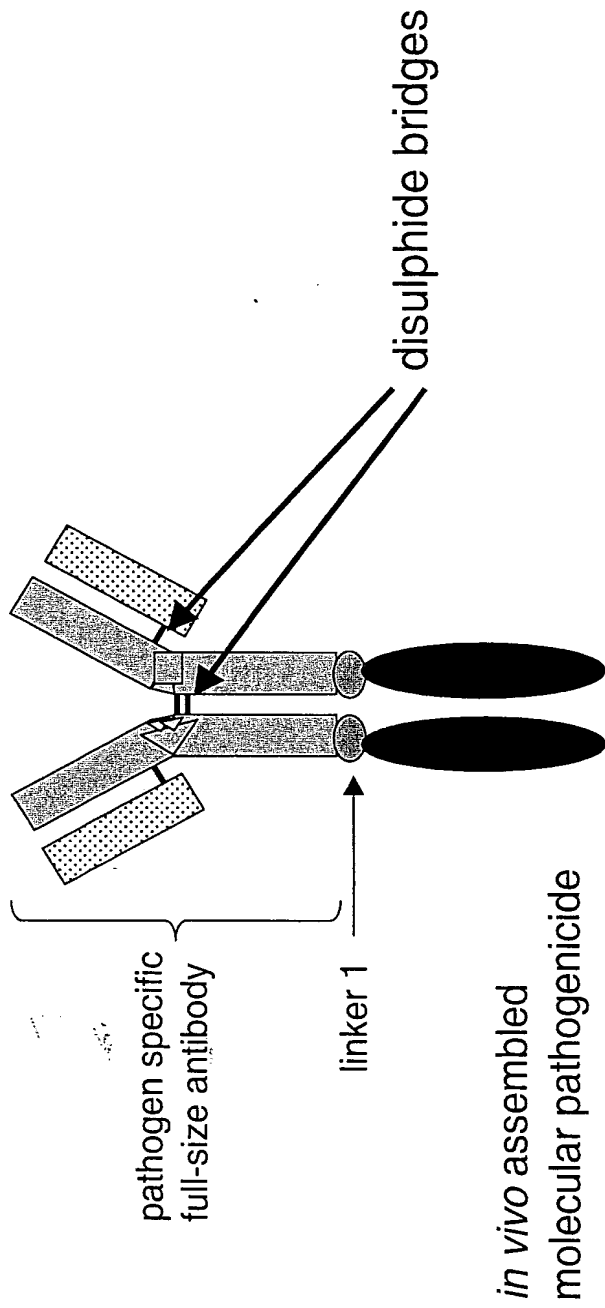
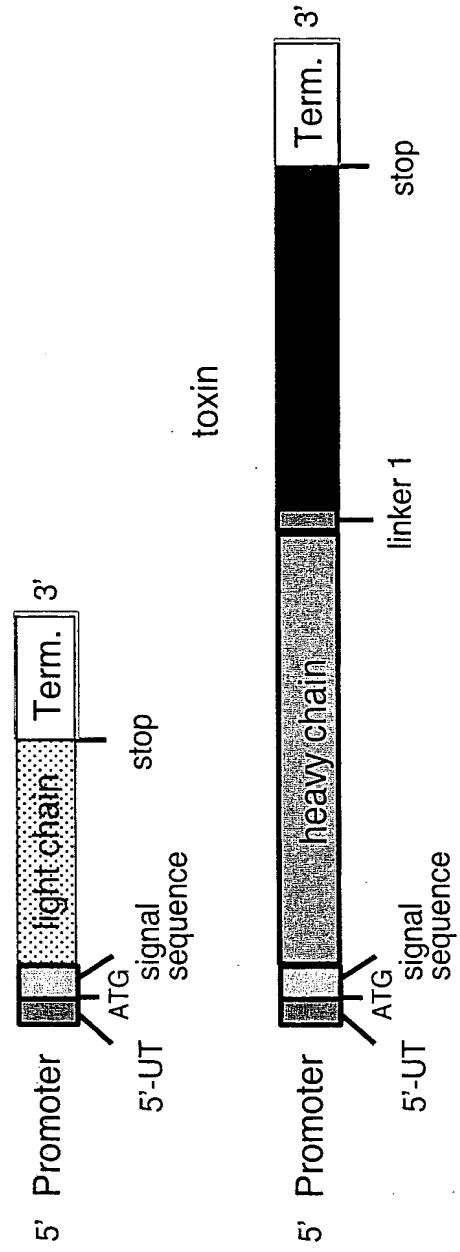
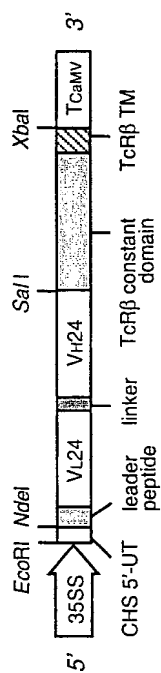
A**B**

Figure 6



pscFv24-TcRβ

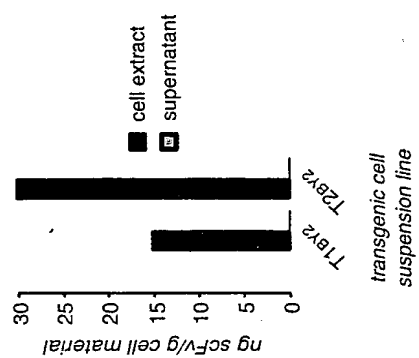
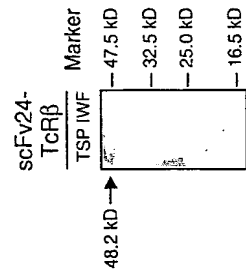


Figure 8

Figure 9



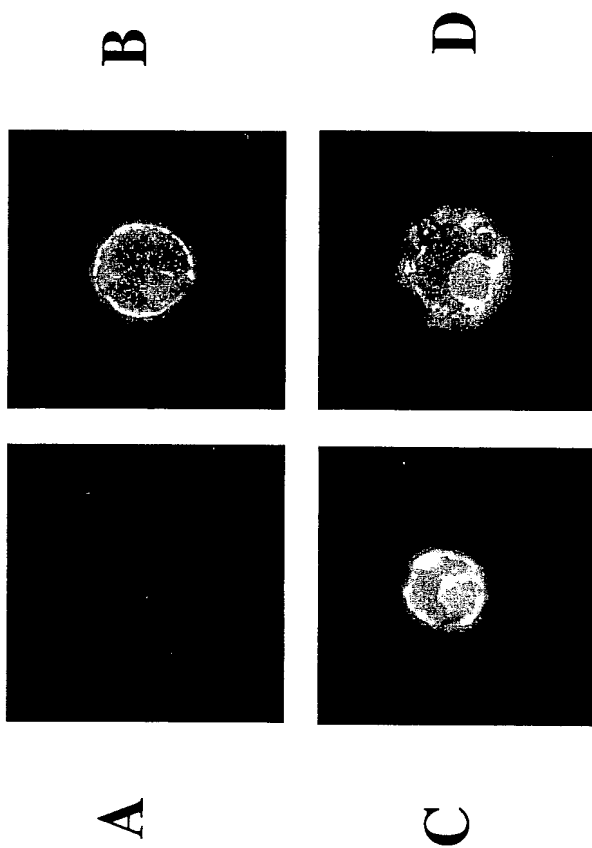


Figure 10

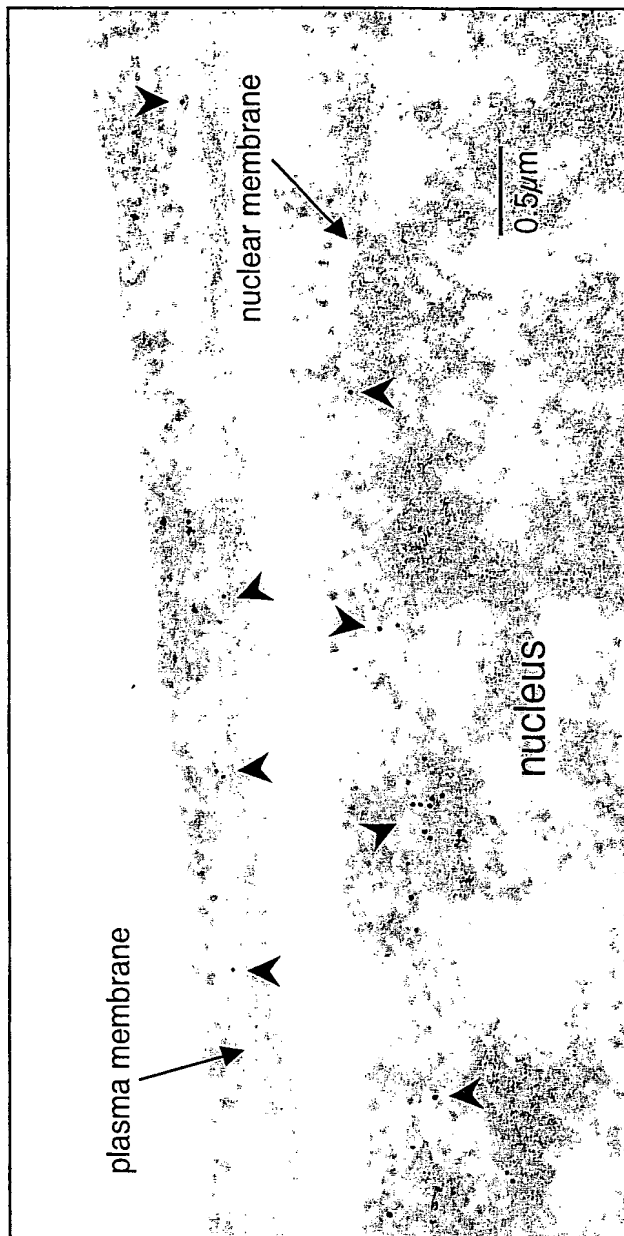


Figure 11

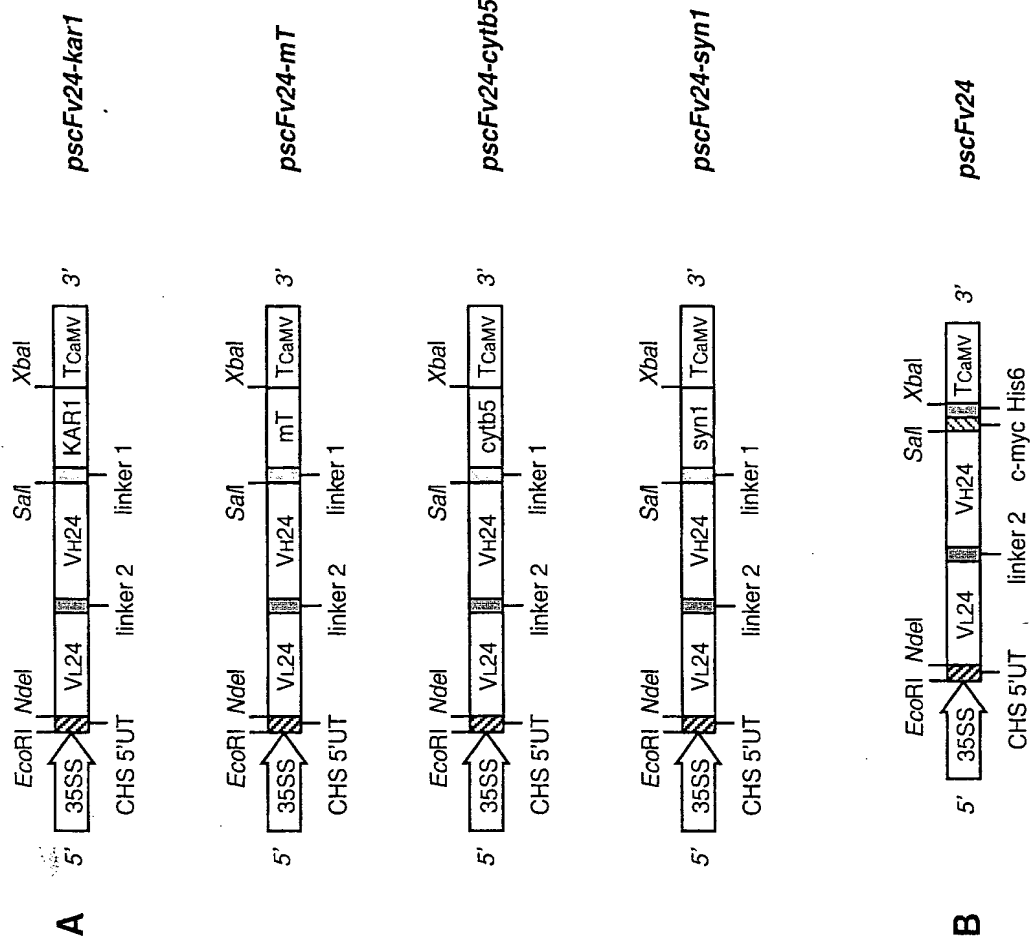
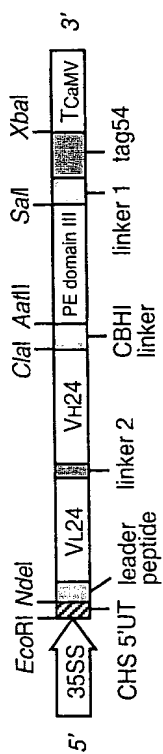


Figure 12



pscFv24-PE400

scFv24 MQIVLTQSPA IMSASPGKEV TMTCSASSSV SKMQWYQOKS GTSPKRWIYD
 Framework I CDR LI Framework II

scFv24 PSKLASGVPG RFSGSGSGTS YSLTISSMEA EDAATYYCOC WSSNPLTFGA
 CDR LII Framework III CDR LIII

scFv24 GTKLEIKGST SGSGKSSECK GEVQLQQSGP ELVNPGASVK MSCKASGYTF
 Framework IV Linker 212 Framework I

scFv24 PTAVMHVWKQ KPGQGLEWIG YINPNKDGTY ENKELKQKAT LTSDKSSNTA
 CDR LI Framework II CDR LII Framework III

scFv24 YMELSSLTSE DSAVYYCARF VDYDWEAYWG QGTLVTVSAV DGGGSMKRML
 Framework III CDR LIII Framework IV linker RNase

RnaseE INATOOEELR VALVDGORLY DLDIESPGHE OKKANIYKKG ITRIEPSLEA
E. coli RNase E gene --->

RnaseE AFVDYGAERH GFLPLKEIAR EYFPANYSAH GRPNIKDVLRL EGQEVIVOID

RnaseE KEERGNGKGA LTTFISLAGS YLVLMPPNPR AGGISRRIEG DDRTELKEAL

RnaseE ASLELPEGMG LIVRTAGVGK SAEALOWDLS FRLKHWEAIK KAAESRPAPF

RnaseE LIHOESNVIV RAFRDYLRD IGEILIDNPK VLELAROHIA ALGRPDFESSK

RnaseE IKLYTGEIPL FSHYOIESOI ESAFOREVRL PSGGSIVIDS TEALTAIDIN

RnaseE SARATRGGDI EETAFTNTLE AADEIAROLR LRDLGGLIVI DFIDMTPVRH

RnaseE ORAVENRLRE AVRODRARIO ISHISRFGLL EMSRHRLSPS LGESSHHVCP

RnaseE RCSGTGTVRD NESLSLSILR LIEEEALKEN TOEVHAIVPV PIASYLLNEK

RnaseE RSAVNAIETR ODGVRVCVIVP NDOMETPHYH VVRVRKGEET PTLSYMLPKL

RnaseE HEEAMALPSE EEFAERKRPE OPALATFAMP DVPPAPTPAE PAAPVAPAP

RnaseE KAAPATPAAP AOPGLLSRFF GALKALFSGG EETKPTEOPA PKAEAKPERO

RnaseE QDRRKPRONN RRDRNERRDT RSERTEGSDN REENRRNRRO AOOOTAETRE

RnaseE SROQAEVTEK ARTADEQOAP RRERSRRRND DKROAQOEAK ALNVEEOSVO

RnaseE ETEQEERVRP VOPRRKOROL NOKVRYEOSV AEEAVVAPVV EETVAAEPIV

RnaseE QEAPAPRTEL VKVPLPVVAO TAPEQOEENN ADNRDNGGMP SFSPLASSPA

RnaseE RKWSASSSLS

Fig. 14

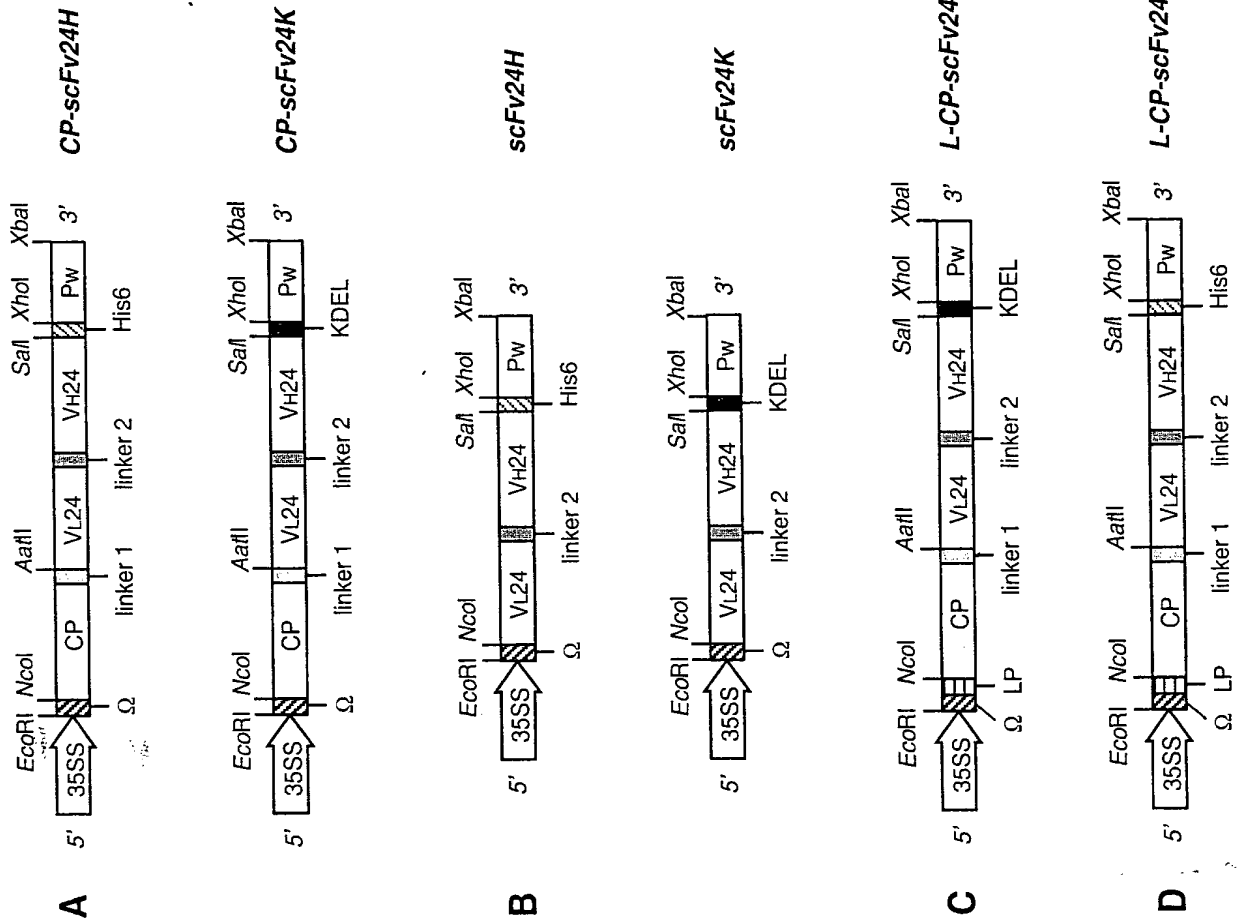


Figure 15

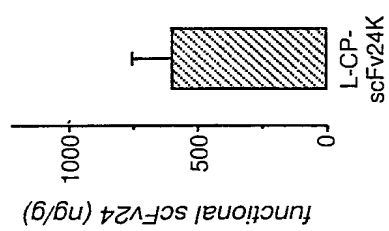


Figure 16

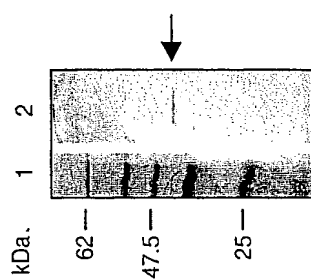


Figure 17

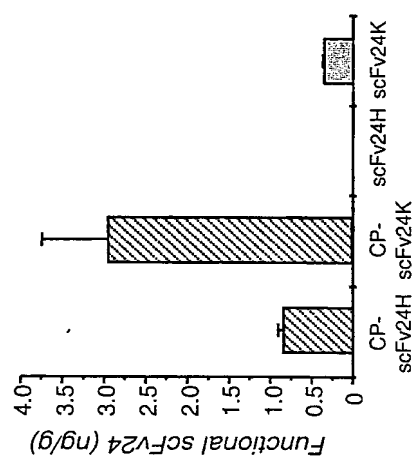


Figure 18

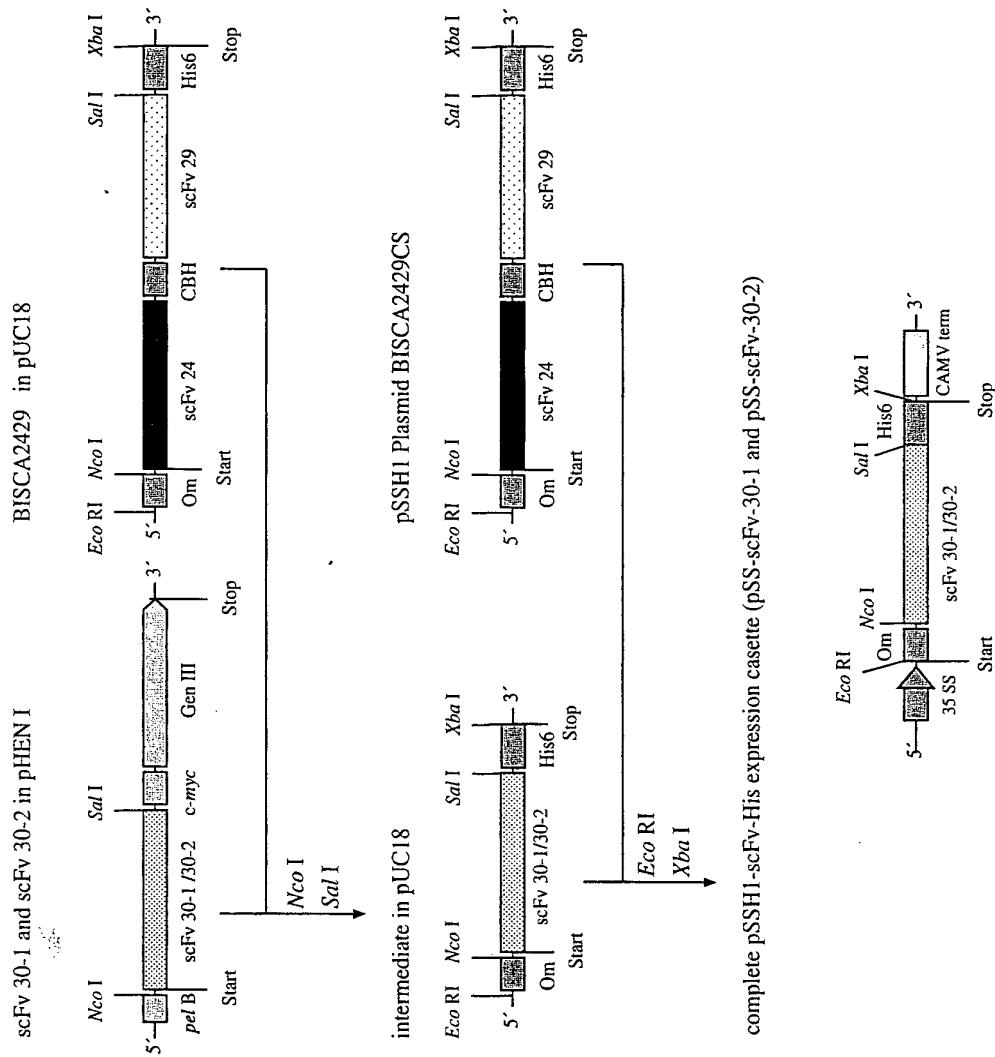


Figure 19

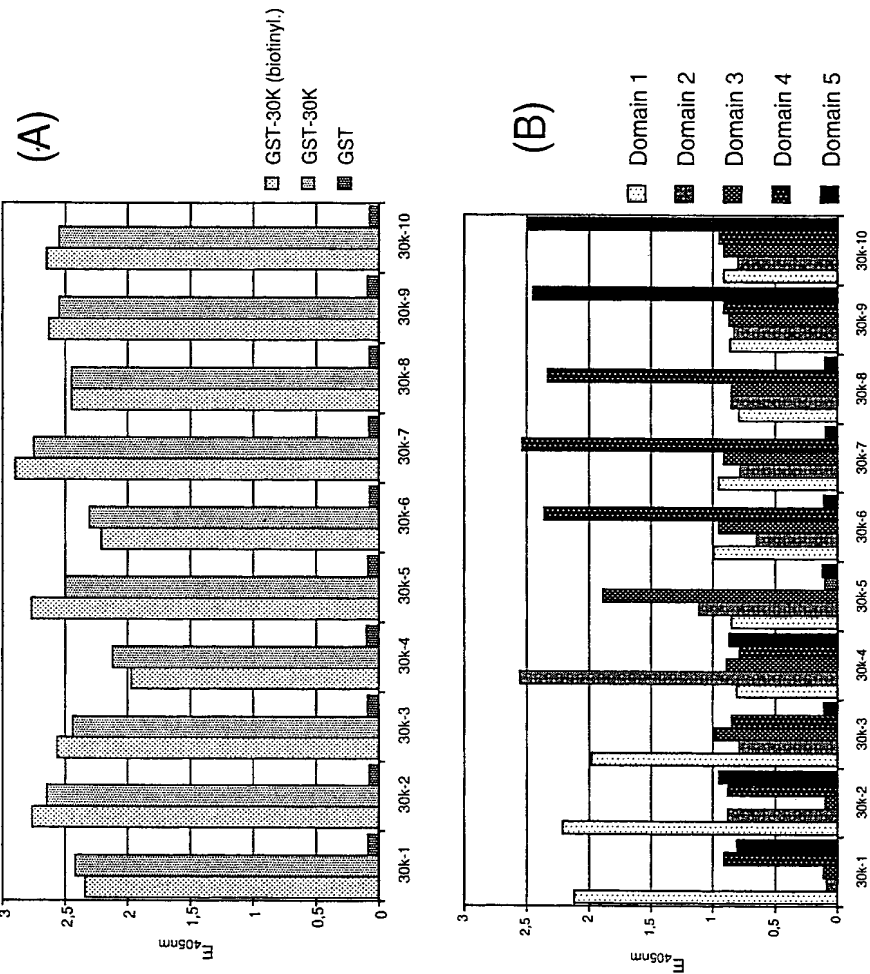


Figure 20

scFv 30-1	--EVHCKQSG	AELVKPGASV	KLSCRASDYT	FTS	WVK	QRPQGGLWEI
scFv 30-2	--EVKLQQSG	AELVKPGASV	KISCKASDYS	FTS	WVK	QSHGKSLEWI
		Framework I		CDR H1		Framework II
scFv 30-1	GETKPSGNGI	NENEKEKSKA	TLTSDYSSST	AYMQLSSLTS	EDSAVYYCTR	
scFv 30-2	GNEINPMYCS	SNOKKKKKA	TLTVDKSSST	AYMQLNSLTS	EDSAVYYCAV	
	CDR HII			Framework III		
scFv 30-1	SGNAMD	WGQGTITVTVS	SGGGGSGGGG	SGGGGS	DIVL	TLSPATLSVT
scFv 30-2	SGNMVDWYAY	WGQGTITVTVS	SGGGGSGGGG	SGGGGS	DILL	TQSPLSLPVS
	CDR HIII	Framework IV	Linker (Gly ₄ Ser) ₃			
scFv 30-1	PGDRVSLSCR	ASOSTSNFEE	WYQQK	SHESPRLLIK	YISOSTSGIP	
scFv 30-2	LGDHASISCR	SSOSTVHSNC	NYTHWYLQN	PGQSPKLLIY	KVSNRESGIP	
	Framework I	CDR LI		Framework II	CDR LII	
scFv 30-1	STFSGSGSGT	DFTLSINSVD	TEDFGMYFC	QSNWPFRFG	SGIKLELKSA	
scFv 30-2	DRFSGSGSGT	DFTLKISRVE	AEDLGVYFC	QSTHWPFRFG	GGTKLELKRA	
		Framework III		CDR LIII	Framework IV	
scFv 30-1	VDAAAEQKLI	SEEDLNGAA*				
scFv 30-2	VDAAAEQKLI	SEEDLNGAA*				
		c-myc tag				

Fig. 21

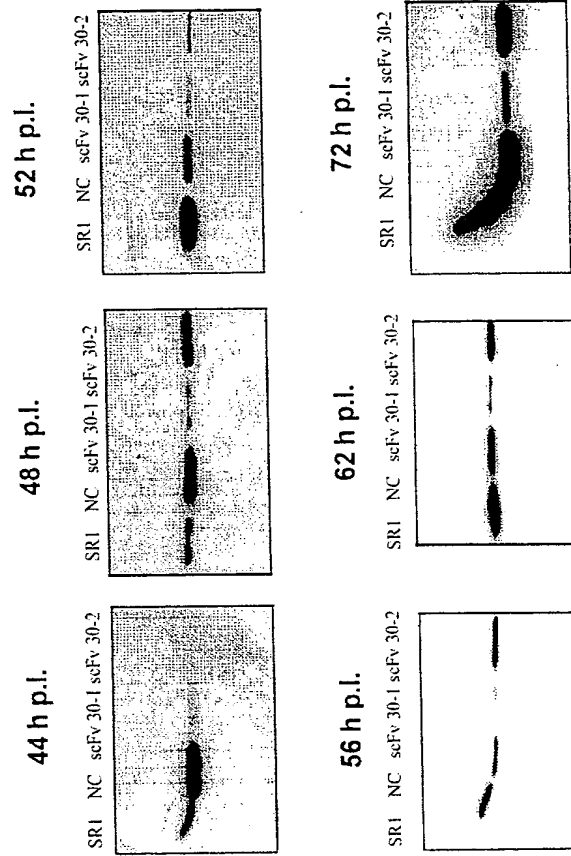


Figure 22

MAEVQLQQSG AELVKPGASV KMSCKASGYT FTNYSNMHWVK QTPGQGLEWI
 GAIYPRNGDT SYNQKFKGKA TLTADKSSST AYMQLSSLTS EDSAVYYCAR
 PDVWGAGTLL TVSAGAGPTS GSGKPGPEG STKGAPDVLMTQAPLTLSVT
 IGQPASISCK SSQSLLDGDG KTYLNWLLQR PGQSPKRLIY LVSKLDSGVP
 DRFTGSGSGT DFTLKISRVE AEDLGVYYCW QGTHFPHTFG GGTKLEIKRA
 RAVDAAA

Figure 23a: Aminoacid sequence of scFv - 3a-2 derived from cDNA

MAQVTLKESG PGILKPSQTL SLTCSFSGFS LSTSGMGVGW IRQPSGKGLE
 WLAHIWWDDD KYYNPSLRSQ LTISKDTSRN QVFLRITNVD TADTATYYCA
 RGYYGNDSPF AYWGQGTLLT VSSGAGPTSG SGKPGPEGSTKGAPDIVLS
 QSPKFMSTSV GDRVSITCKA SQIVRTAVAW FQKPGQSPK ALIYLASNRH
 TGVDPDRFTGS GSGTDFTLTI SNVQSEDLAD YFCLQHWNYP FTFGSGTKLE
 IKRAVDAAA

Figure 23b: Aminoacid sequence of scFv 54-1 derived from cDNA

MAQIQLVQSG PELKKPGQTV KISCKASAYT FTDYSMHWVK QAPGKGLKWM
 GWINTETGEP TYADDFKGRF AFSLETSAST AYLQINTLKN EDSATYFCAR
 GSGFNPNYWGQ GTLVTVSAGA GPTSGSGKPG PEGSGTKGAP DIVLSQSPSS
 LAVSVGEKVT MSCKSSQSLI YSSNQKNYLA WYQQKPGQSP KLLIYWASTR
 ESGVPDRFTG SSGTDFTLTI INSVKAEDLA VYYCQQYYSY VTFGAGTKLE
 IKRAVDAAA

Figure 23c: Aminoacid sequence of scFv - 3min derived from cDNA

Fig. 23

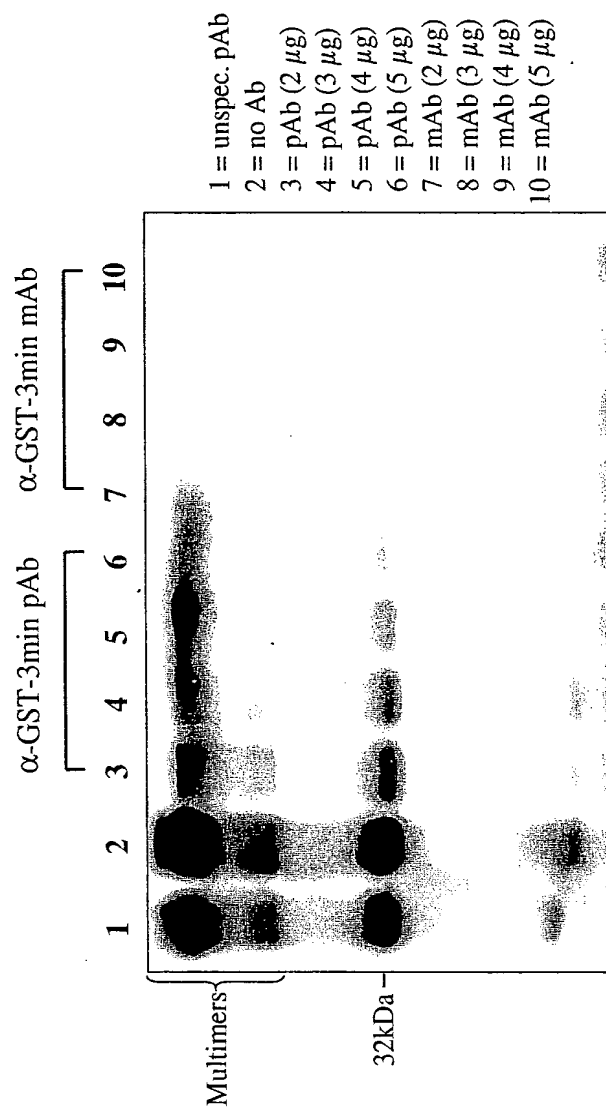


Figure 24

(a) TMV-coatprotein:

127 128 129 130 131 132 133 134 135 136 137 138
N L I V E L I R G T G S

pVIII 9aa:

A1: K T D L V C R A T
A2: R I V I C G R V T
A4: R G T L P A R G T
A5: V G R Q R D T Q S
B5: F L R V D A R E T
C4: V A G M L G K G T
D5: R W E L A N R S T
E5: P S A L G T R E T
F3: K N D L V S R A T
G1: Q I V S A W R E T

pVIII 9aa.Cys:

B9/G1: C A L P A R H I G R C
F3: C Q L P A R A T S S C
H1: C I T S Q R E T G W C
H5: C R R S T T G I C
H10: C S T T L Y K R G T C

consensus-sequence:

R V D L P A R E T

(b) 54K-protein:

402 403 404 405 406 407 408 409 410 411 412 413
K H I K D W E H L E E F

A2/A9/B8/C9:

K R K D G E H W L

A6/B5/F8/H1:

R Q A K S W S S L

G5:

Y Q A K E W S N L

H10:

K D W E H R V P S

consensus-sequence:

K D W E / S H L

(c) GST-3min:

← GST → 3min →
-6 -5 -4 -3 -2 -1 +1 +2 +3 +4 +5 +6
P K S D P Q M G K R R R

pVIII 9aa:

A8: H P R P Q L A S L
C2: H P D P Q S S H S
E7: R F T D P Q L H P
F5: K Q D P Q Q Q K Q
F8: V P D S Q Q L E W P
G7: H C D P Q L Y Q E
H1: D P Q M F R R H C
H5: F K D G Q L R P Q

pVIII 9aa.Cys:

A4: C P D P Q L R L H R C
A5: C P D P Q L N G T R C
A7/B10/H4: C P D P Q L S S L R C
A8: C P D P Q L R L H R C
A9: C P D P Q L T L H R C
G4: C P D P Q L S L Q R C
H6: C P D A Q L S G T R C

consensus-sequence:

H P D P Q L S L H R

Fig. 25

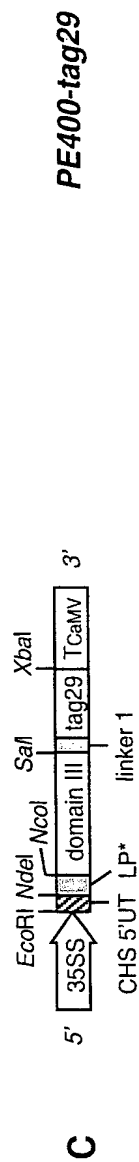
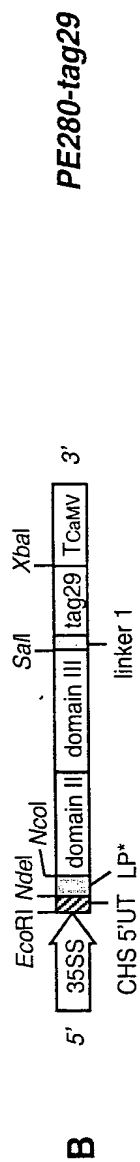
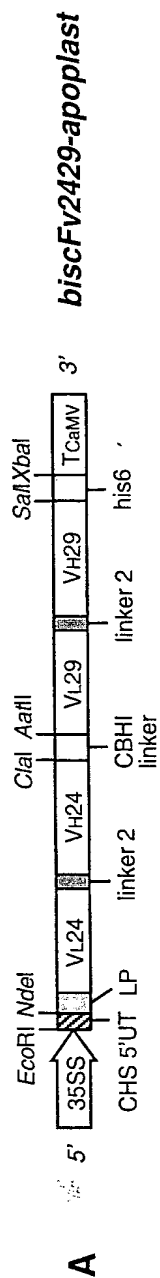


Figure 26

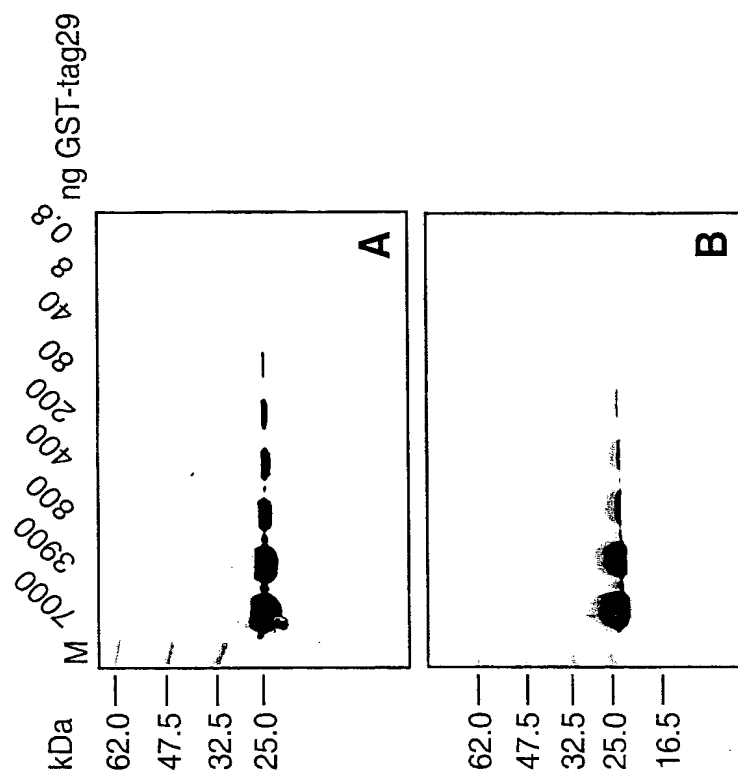


Figure 27

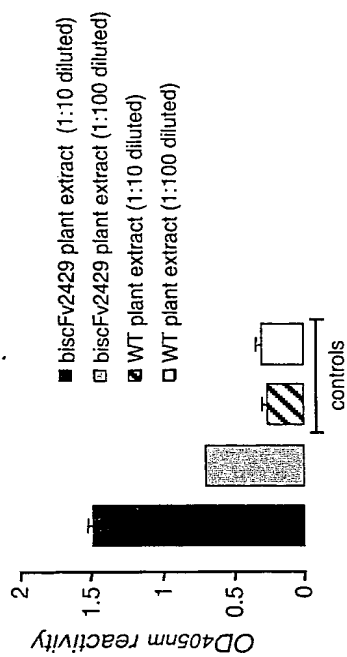


Figure 28

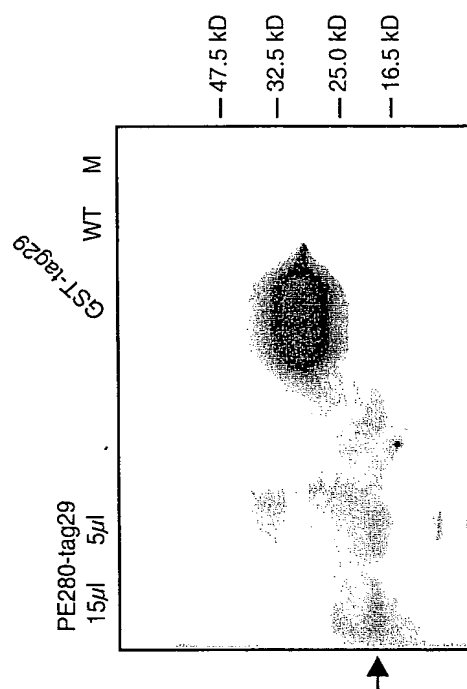


Figure 29

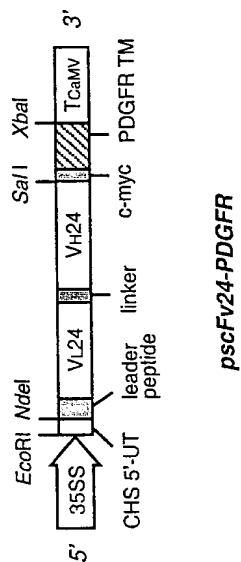


Figure 30

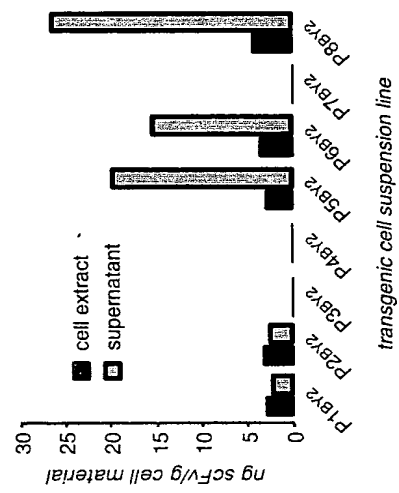


Figure 31

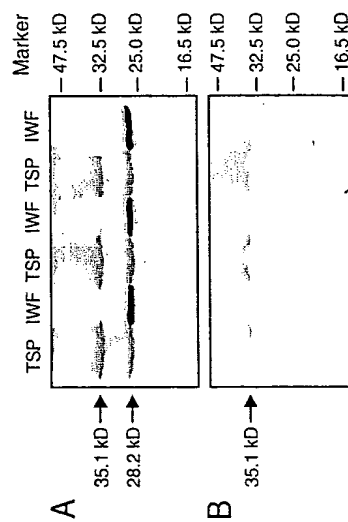


Figure 32